

Flying J Petroleums Inc., Former Cody Refinery

Physical Address

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Mailing Address

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FACILITY BACKGROUND

The Cody Refinery was constructed in the 1930's by Park Refining. Husky Oil Company (Husky) purchased the refinery from Park Refining in 1938. Husky made numerous improvements to the refinery over a span of 20 years resulting in a maximum refining capacity of 12,000 barrels per day of crude in the 1970's. The Cody Refinery processed a sour crude with a high asphalt and sulfur content that was produced from the Big Horn Basin in Wyoming. Refined products consisted of 80 percent of different grades of asphalt and fuel oils and 20 percent gasoline and diesel fuel.

In 1982, Husky shut down refinery operations. Husky owned the former Cody Refinery until 1984 when it formed a subsidiary holding company, RMT Properties, Inc. to temporarily retain Husky's assets. Yellowstone Refining Company (YRC) purchased the former Cody Refinery from RMT Properties, Inc. and assumed control of the property on October 20, 1986. Flying J Transportation, LLC then absorbed YRC. In 2011, Flying J Transportation, LLC conveyed and quit claimed the site property to Flying J Petroleums Inc. (FJP). FJP is a wholly-owned subsidiary of FJ Management Inc., formerly known as Flying J. Inc.

The former Cody Refinery is located approximately one mile northeast of Cody, Wyoming in Park County. The Shoshoni River forms the southern border and Park County Road 2AB forms the northern border. The former refinery is comprised of two areas, the Waste Management Area (WMA) and the Refinery Property (RP). Cottonwood Creek divides the 79.4 acre WMA to the east and the 196.5 acres RP to the west. In addition, the site contains a third parcel of land referred to as the Heart Mountain Evaporation Ponds (HMEP) located approximately five miles north-northwest of the former refinery. The 160 acre HMEPs were constructed on leased land and closed in accordance with the Closure Plan (1998). The WDEQ approved their closure in a letter dated November 4, 2004.

The WMA contains the following three closed Waste Material Management Units (WMMU): 1) Surface Impoundments, 2) Land Treatment Area, and 3) Tetraethyl Lead Weathering Area. The WMA was closed in accordance with the approved closure plan (1987/1988) and was certified closed by YRC on December 5, 1988. The RP is the area where crude oil was stored and refined.

The WDEQ issued YRC a Permit for a Hazardous Waste Management Facility (Facility ID Number WYD006230189) on August 2, 1996. The Permit requires YRC to provide post-closure care for the WMA, to conduct corrective action investigations for on-site and off-site releases of hazardous waste/constituents, to implement any corrective actions deemed necessary, and to manage all hazardous wastes at the facility in accordance with the Permit. The Permit expired on August 2, 2001. Flying J Transportation, LLC submitted a RCRA Part A and Part B Permit Application dated March 2001, to obtain a renewed Post-Closure and Corrective Action Permit from the WDEQ. The WDEQ did not take action on this permit application because shortly after submitting the application,

FJP decided to enter a portion of the site into the VRP and, therefore, determined it would be more efficient to submit a revised Permit Application which would acknowledge and reference the VRP Remedy Agreement. FJP submitted a revised application in 2013. WDEQ gave notice on September 17, 2013 that the permit application was complete and technically adequate, and published the draft permit. Public notice was October 1, 2013 through November 14, 2013. A final permit was issued with the effective date of December 13, 2013.

SITE INVESTIGATIONS & RISK ASSESSMENT

The RCRA Facility Assessment (RFA) conducted in 1988 at the facility identified Waste Material Management Units (WMMUs) and Areas of Concern (AOCs) as described in the RFA Report (March 1989). The list of WMMUs and AOCs was subsequently modified and included in the existing Permit. The RCRA Facility Investigation (RFI) Report was acknowledged by the WDEQ on August 12, 1992 and consisted of the following two documents: "Site Assessment and Groundwater Investigation, Yellowstone Refinery and Heart Mountain Evaporation Ponds," IT Corp., June 1989, and "Phase II Groundwater Assessment, Yellowstone Refining Company," GeoWest Golden, Inc., May 1990. Because the RFI did not include a source study, the WDEQ required "that an extent of contamination study/summary and a study to delineate sources of contamination be included in the Corrective Measures Study (CMS)". The Permit required the CMS to be completed in three stages: Stage 1 - Source Investigation; Stage 2 - Risk Assessment and Migration Pathways Analysis; and, Stage 3 - Corrective Measures Alternative Evaluation. A source characterization has been completed for the site as described in the "Corrective Measures Study Stage 1: Source Characterization Study, Yellowstone Refining Company, Refinery Property, Cody, Wyoming, February 11, 2000 (RETEC)". An Ecological Risk Assessment (ERA) has been completed for the site. On March 12, 2008, the WDEQ approved the ERA (February 22, 2008). A Human Health Risk Assessment (HHRA) has been completed for the site. On September 26, 2008, the WDEQ approved the HHRA (September 3, 2008). The approved risk assessments are part of the basis for the remedial evaluation in the Corrective Measures Study (CMS). Because site characterization data is sufficient, a CMS was submitted in June 2009. A revised CMS addressing WDEQ's comments was approved by the WDEQ in August 2012.

REMEDIATION ACTIVITIES

Refinery Property:

Closure activities at the RP took place between 1983 and 1988 and included removal of materials in process units, pipelines, storage tanks, and several WMMUs. Dismantlement and demolition of the RP took place between 1996 and 1998 and included the removal of process units, storage tanks, piping, and buildings. Wolz's Ditch, originally constructed in 1958 to collect hydrocarbon spills, and was improved in July 2000 by converting the open ditch to a buried trench for the recovery of groundwater discharging from the upper terrace at the RP. A Boundary Control System (BCS) was installed along the Shoshone River and began operation in 2000. The BCS is an impermeable vertical membrane (hanging wall) installed within a subsurface trench. The purpose of the BCS is to collect product on the water table while allowing groundwater to flow under the hanging wall. Groundwater monitoring on the downgradient side of the BCS indicates that it is effective and product is not migrating into the river. The RP landfill was closed between 2005 and 2007. Soil, solid wastes, and liquid asphalt materials were excavated, stabilized and disposed of at the permitted landfill. The subsurface pipe investigation and removal project was completed between 2005 and 2007. Approximately 40,000 linear feet of pipe was removed and approximately 600,000 cubic feet of soil was excavated and inspected.

Waste Management Unit:

A total of five waste disposal units were operated at the WMA, including two Surface Impoundments (SIs), a Land Treatment Area (LTA), a Tetraethyl Lead Weathering Area (TEL), an Asphalt Disposal Area (ADA), and a Fire Fighting Training Area (FFTA). The SIs, LTA and TEL were identified as hazardous waste material management units (HWMUs). Materials in the ADA and FFTA were excavated and placed into the SIs. The HWMUs were closed and are now known as the regulated unit (WMA) subject to post-closure requirements in the Permit. The proposed groundwater remedy in the Permit for the WMA is monitored natural attenuation. In 2015, contaminants dissolved in groundwater at concentrations above drinking water standards (benzene, selenium) at the WMA were present in only two of the 17 monitoring wells. Based on the current data, it is expected that MNA will be the chosen remedy and incorporated into the Permit Renewal.

In 2014, FJP sampled soil in the LTA to determine whether hazardous constituents were present and if an unsaturated zone monitoring program was warranted. Hazardous constituents were detected and FJP is in the process of submitting a Modification Request to establish an unsaturated zone monitoring program. The Modification Request for the unsaturated zone monitoring program will run concurrently with the modification that incorporates the Remedy Agreement into the Permit.

Heart Mountain Evaporation Ponds (HMEP):

The HMEP consisted of twenty evaporation ponds constructed in 1976 for evaporation of refinery wastewater. Only four ponds were used for disposal of refinery wastewater. In 1999-2000, approximately 13,000 cubic yards of hydrocarbon-contaminated sediment were removed from the 4 ponds and disposed of at a permitted landfill. The HMEP were clean closed as described in the Closure Certification which the WDEQ approved on November 4, 2004. WDEQ's final closure approval of the HMEP will be incorporated into the Permit Renewal.

WYOMING'S VOLUNTARY REMEDIATION PROGRAM (VRP)

FJP submitted an application dated March 22, 2007, for participation of the former Cody Refinery in the WDEQ Voluntary Remediation Program (VRP). The application included all of the RP (196.5 acres) and all of the WMA (79.4 acres) with the exception of the regulated unit and buffer zone (25 acres). The site was accepted into the VRP on May 9, 2007. Wyoming Statute (§35-11-1604) provides the public with the opportunity to request a Public Participation Plan (PPP) for sites enrolled in the VRP. The WDEQ received significant comments from the public requesting that FJP develop a PPP for the former Cody Refinery. On February 20, 2008, the WDEQ approved the PPP for the former Cody Refinery.

Wyoming Statute allows for the use of alternative cleanup levels for sites enrolled in the VRP if a Use Control Area (UCA) is obtained for the site. In anticipation of requesting a remedy with alternative cleanup levels, FJP petitioned Park County to designate a UCA for the site. The UCA petition proposed restricting the site from the following uses: 1) residential, 2) nursing home, and/or daycare facilities, and 3) any raising of edible plants, roots, or fruit bearing trees or shrubs. On May 13, 2008, the Park County Commissioners unanimously approved the adoption of a resolution for the creation of a UCA for the former Cody Refinery. The UCA covers the entire facility with the exception of 7.65 acres that is owned by Forward Cody Wyoming, Inc. This property is on the western side of the facility and is referred to as the Western Area. FJP conducted a site characterization of the Western Area in 2014 and any future remedies will be incorporated into the Remedy Agreement.

The WDEQ is currently drafting a Remedy Agreement for the site under the VRP. The 2013 Permit will be modified to incorporate the Remedy Agreement. The Remedy Agreement will cover corrective action at the site, and the Permit will cover the regulated units including a provision that

ensures corrective action will be covered under the Permit if the Remedy Agreement requirements are not met.

ENVIRONMENTAL INDICATORS

Environmental Indicators (“EIs”) are an EPA measure used to determine if contamination is being migrated at or from RCRA facilities. RCRA authorized states, such as Wyoming, make the determination whether a facility has met the EI’s, and that information is reported to EPA. There are two Environmental Indicators: 1) “Human Health Exposures Under Control”, and 2) “Migration of Contaminated Groundwater Under Control”. In September 2005, the WDEQ made the determination that human health exposures were under control. In October 2004, the WDEQ made the determination that the migration to groundwater was under control.

PATH FORWARD TO MEETING EPA’S 2020 CORRECTIVE ACTION GOALS

The FJP Former Cody Refinery is located approximately one mile northeast of Cody, Wyoming adjacent to the Shoshoni River. The facility is surrounded primarily by industrial, commercial, and undeveloped land. There are few private residences located adjacent to the facility.

The 2013 Permit includes post-closure care of the regulated unit, and a contingency for corrective action at the rest of the facility if the Remedy Agreement requirements are not met. Now that the Permit is approved, the WDEQ will draft a Remedy Agreement for corrective action for that portion of the site under the VRP. This includes the entire facility with the exception of the regulated units and buffer zone and the HMEP. It is anticipated that the Remedy Agreement will become effective in 2017. The WDEQ also anticipates that FJP will complete construction of all remedies at the facility by 2017.

FOR MORE INFORMATION

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